THE METHODIC DESCRIPTION SURGICAL DISEASE

AND

THE METHODIC REPORT SURGICAL CASE

BY

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Professor of Anatomy and Clinical Surgery. Tulane University of Louisiana

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THE METHODIC REPORT

THE METHODIC DESCRIPTION OF A SURGICAL DISEASE.

NO ART, no study has ever become a science until it had evolved its methods and its laws. The great effect and the use of these are to cover and to govern a multitude of details, which otherwise have to be remembered separately; also to facilitate the understanding between writers and readers.

Students sorely need a methodical guide to lead them in the intricate labyrinths of surgical descriptions. And yet those labyrinths are really so only because we lack the knowledge or the charts of their construction, or an Ariadne's thread which will be a sure guide in, through and out of the apparently innumerable turns and meanders. Upon close study it is found that in the diseased, as in the healthy, state, nature's laws are less numerous, less complicated, more simple than we think, after we have succeeded in recognizing them, reading them, understanding them and remembering them.

Another object of this method is to assist students in remembering thoroughly, easily and intelligently; also how it is done, and should be done. Although most likely and truly imperfect to the mind of many readers, the following description cannot fail to assist the student of surgery; the thread may be coarse, may be made up of pieces of different materials, tied together, but it is a thread none the less, and, as such, most precious if constantly held in hand. The best of all methods or guides would be the one which all would agree to follow, however susceptible of improvement it might be.

The innumerable and complicated facts of surgical diseases can be better learned and remembered by adopting a uniform and rigorous method in their description. The guide should be inexorably systematic, and always the same for each and every surgical disease. This may be dry, monotonous and hard, but it will be of the greatest assistance to those who have to learn and to remember. Indeed, all text-books on surgical diseases have almost the same great divisions and headings in describing a disease, but it is in the details and smaller

things under those headings that the students need systematic and uniform assistance. It is to be borne in mind that students of surgery who read a text-book are to remember forever all they read; therefore, all superfluous words, remarks and dissertations had better be omitted, so as to leave the facts as simple and prominent as possible; but the guide must not interfere with extensive descriptions when deemed desirable. Students of ordinary intelligence can readily supply in their own minds connecting words, and even sentences.

Of course, the guide describing a surgical disease should be followed more or less closely, according to the importance of the disease, or of the facts connected with it. If some facts are of no importance they should be skipped, and stress should be laid upon those facts only which present a practical bearing or a scientific interest. It is essential to follow the guide systematically, as one fact is so intimately connected with the following one that the place where to say it cannot very well be changed without disturbing the harmony of the whole. There is a place for everything, and everything should be said in its place. We should say at the beginning what belongs there, and not say it in the middle of the description. Again, we must say in the middle of it what belongs there, and not say it at the end. It is most discouraging to students to read a fact concerning the prognosis, for instance, here, then another a few lines further, and a third one a few lines further again. separated by facts relating to symptoms, cause, etc.; instead of saving together all that pertains to prognosis, and where it should be said.

It may seem difficult and complicated at first, but after the guide has been committed thoroughly to memory, so as to have it at the tongue's end without hesitating to think, it will be seen how smoothly it works, and how much it will assist. It is impossible to forget or skip anything, as almost every few words in the guide call for an answer at its proper place, which answer is easily remembered by one who has studied the disease two or three times with this severe system and training. Students in surgery must learn how to spell, read, write and remember surgery as children learn how to spell, read, write and remember the language they speak.

According to cases, the course of the whole description, or of a part of it only, may be changed or inverted, but this should be done as seldom as possible, so as to preserve the general application and utility of the method, even at the cost of a little apparent awkwardness, which will disappear with time and custom.

The order of description may jar against the present accepted ideas, and some just objections will be made; some facts may seem to be forced in, but, on the whole, they are few and are fully compensated by other gains.

In this paper we must beg for patience with some repetitions which could easily be avoided if we were not writing on a new subject, where clearness and precision must take precedence over style or pleasant reading.

GUIDE TO DESCRIBE METHODICALLY A GENERAL SURGICAL DISEASE.

(An Ordinary or Typical and Uncomplicated Case.)

We shall first describe the guide or course to be followed in describing methodically a general surgical disease.

The type adopted should be an ordinary or uncomplicated case. This means that all points and features which are not observed ordinarily in the disease should be left out, to be described with all other rare or exceptional points and features, with the forms, varieties and complications of the disease. This is very important, as it relieves the description of many confusing and apparently contradictory statements, which so harass and perplex students. Yet these points, being often of importance, must be studied, but by themselves and where the attention is laid on them with all profit.

The description should begin by the *Synonomy*, or various names of the disease, and their *Etymology*.

The *History* of this type is often most interesting, as showing the efforts required to bring the knowledge of the disease to its present state. When possible, it should be divided into periods, marked by, and named after, the great steps which have characterized positive progress. The names of the investigators and writers must be given, with the dates of their

contributions and the points and features they have specially investigated and cleared. It is but sheer justice to the pioneers who have contributed to build the knowledge from which we are now deriving reputation and profit! This also teaches the reader and student that in thus profiting by the labors of their predecessors they are incurring the obligation to make efforts to contribute themselves to the common stock for those who follow.

The *Definition* of a disease is described according to its cause, or its pathology, its symptoms, course, duration, termination, prognosis, or after several of these features combined.

The *Frequency* should be described here in a general way, only, as this feature will often return in describing the causes, lesions, symptoms, etc.

The *Division* of the disease or subject into various parts is important, if it is at all complicated. A general description should be made of all the points common to the various diseases, and then each division should be described separately as a separate disease.

ETIOLOGY OR CAUSES.

The Etiology or Causes of diseases should be divided into the two great divisions, the external and the internal causes.

The External Causes are all those originating outside of the patient. They comprise the following headings: The Geographic, Meteorologic and Atmospheric Causes include the mention of the effects of latitude, longitude, altitude, climate, seasons, rains, storms, changes, sudden or slow; of the variations of the thermometer, barometer, hygrometer; of the influence of day and night air, etc., as a cause of the disease. Telluric Causes call for the description of the action of dry soil, damp soil, wet soil, marshy soil, defective drainage, sandy soil, clay soil, calcareous soil. Microbic, infectious, contagious, epidemic, endemic, sporadic causes should be mentioned specially; also, the presence or absence of parasites as causes. The Physical Causes or Agents may be traumatic (blow or fall), or may be the action of direct heat or cold, or of dampness or of wet on the part diseased. Chemical Causes

or Agents call for the statement of the action of the various gases, fluids, solids; metals or metalloids; organic substances susceptible of producing the disease. Hygienic Causes or Agents comprise the description of the effects of the various characters and conditions of the air we breathe, the water we drink, the food we eat, the clothing, the housing, and all such. Therapeutic Causes or Agents are those which cause serious disorders or real diseases by their action in overdoses, or in normal doses, but on subjects of peculiar susceptibility.

The Internal Causes include all those which are inherent to the patient himself. They comprise the following headings: Sex: Age: congenitality, infancy, childhood, youth, maturity or manhood, middle age, old age, and decrepit age; Races; Nationalities; Anatomic Causes or peculiar conditions of the part as a cause of the disease: of the skin, connective tissue, adipose tissue, tendons, muscles, fascia, periosteum, bones, medulla, arteries, veins, capillaries, lymphatic vessels, lymphatic glands, nerves, organs special to the region; the side most commonly affected must be mentioned; the weight, the height, the breadth of neck, shoulders, chest, at expiration, at inspiration, the abdomen, the hips. Physiologic Causes include the effects of the constitution, temperament, idiosyncrasies, heredity (ascending, descending, collateral), trades, professions, habits, social conditions, mental and psychic conditions (such as emotions, frights, antipathy, suggestion, grief, anger).

Pathologic Causes form the group of symptomatic diseases or diseases due to other diseases, directly or indirectly, i. e., due to previous diseases, medical or surgical, of which the actual disease may be a sequel or a consequence; or to traumatism or injuries, or to surgical operations. These diseases may be of some of the organs or of the blood or fluids of the body (hematologic causes); each organ and fluid and its diseases should be reviewed and its effects noted as a cause of the present disease. Metastatic causes must be here mentioned.

All the above causes may be predisposing or determining; exciting, instrumental, controlling, final or ultimate; efficient or not; primary, idiopathic, secondary or symptomatic.

For each cause we must state its frequency and degree of importance.

PATHOLOGY OR PATHOLOGIC ANATOMY.

The lesions of each stage should be described as those of a separate disease.

The lesions are macroscopic or microscopic.

The Lesions of the Main Diseased Organ must, of course, be first described. They comprise the following:

First—The description of the alterations of the Normal Physical Characters, *i. e.*, of the size, situation, direction, mobility, shape; the alterations of the Normal Structure *i. e.*, of the color, consistency, envelopes or coats, stroma, proper tissue (cells, fibers, tubes), capillaries; the alterations of the Normal Chemical Composition of the parts (inorganic, organic). All these may be decreased, increased, perverted.

Second—The alterations due to New Pathologic Products. These may be gaseous (traumatic emphysema in fractures without lesions of the air passages); they may be fluid and serous (oedema, dropsy), or due to blood or pus; they may be solid or semisolid (exudations or deposits of fibrin, fibrino-plastic lymph or matter, or false membranes; they may be new envelopes (where none existed before), new stroma, new cells and arrangement, new fibers and arrangement, new deposits (granular, fatty, calcareous, pigmentary, malanotic) germs (parasites); finally new capillaries and new nerve fibrils.

Third—Alterations due to New Chemical Elements, inorganic, organic, gases, fluids, solids; metals, metalloids, etc.

The Lesions of the Region, i. e., of the neighboring organs, comprise the lesions of the skin, connective tissue, adipose tissue, tendons, muscles, fascia, periosteum, bones, medulla, arteries, veins, capillaries, lymphatic vessels, lymphatic glands, nerves of the organ special to the region, if any. These we must describe as above, lesions of each stage, of the normal physical characters, etc.

The Lesions of the Distant Organs or the Organs at Large comprise those of the organs of circulation (blood and lymphatic system); respiration, innervation, urination, digestion,

generation, of special sense (eye, ear, nose, taste, skin). In each we must describe the lesions of each stage, of the normal physical characters, etc.

For each pathologic feature we must state the frequency and the importance.

PATHOLOGIC PHYSIOLOGY.

Diseased organs have altered functions. The physiologic alterations of each stage should be described as a separate disease. The possible lesions are the following:

First—The alterations in the Normal Characters of the Physical or Mechanical Phenomena of the functions of the organ; these usually affect the movements or contractions of the muscular fibers; they are decreased, increased or perverted.

Second—The alterations in the Characters of the Chemical and Vital Phenomena, or the action of the peculiar secretions and excretions, which will be more fully described further.

Third -The alterations by New or Abnormal Phenomena, which may be physical, chemical or vital.

Fourth—The alterations in the Functions of the Region, i. c., of the neighboring organs, which may also be physical, mechanical, chemical or vital.

Fifth—The alterations of the Functions of the Organs at Large, i. e., organs of circulation, respiration, etc.

Sixth—The Mode of Repair, or of Reproduction of injured and lost parts.

For each phenomenon state the frequency and importance.

SYMPTOMS.

The symptoms to be described are local, regional and general.

The Local Symptoms may be subjective, physical, functional.

The Subjective Symptoms are those felt by the patient only, and which cannot be detected by the surgeon; they consist in pain, sensations of heaviness, of heat, of cold, of prickings, of numbness.

The *Physical Symptoms* are those detected by the sight, touch, hearing, smell, taste.

By the Sight we detect and describe the general appearance of the part, its attitude, the muscular movements, the color, transparency, shape (form or deformity of the parts); the sphygmographic tracings of the part, of the pulse, of the heart; we make the comparison with the other side; by the use of instruments we extend the sight (speculum, ophthalmoscope.

By the *Touch* and by *Palpation* we detect and describe the temperature, the consistency, the presence of emphysema, crepitus, crepitation, fluctuation, mobility of the parts, of pulsations, with or without expansion, of displacement. By *Mensuration* we determine and describe the changes in the normal length, or breadth or circumference of the parts. By *Probing*, the course, depth and bottom of a sinus and the presence of a foreign body. By *Percussion* we detect and describe the presence or absence of resonance, the dullness, the absence of elasticity. By the *Exploring Needle* we determine the presence of a liquid and its nature by its macroscopic and microscopic examination. By the *Hearing* and *Inscultation* we detect and describe the alterations in the characters of the normal sounds of the diseased part, and the alterations due to new or pathologic sounds.

By the *Smell* we may detect the alcoholic breath, the fetid breath of diseases of the mouth, throat and lungs, the fetid sputum; the odor of suppuration under a dressing, the odor of blood, of incontinence of urine, of fecal matter, of gangrene, of peculiar remedies. *Taste* is seldom, if ever, used for diagnostic purposes.

The *Fluids* or *Secretions*, normal or abnormal, presented by the diseased parts, must be described (see description of a fluid, further); also the microscopic and chemic examination of the secretions or of particles of tissues (as described under pathologic anatomy). In some cases the conditions of the blood must be described (as a fluid).

Tests with inoculations, with hypodermic injections or graftings, with fluids or particles, before or after cultures, on the same subject, or other subjects, or the lower animals, must be described as parts of symptomatology.

The Functional Symptoms are produced by the impairment

of the functions of the diseased part: they are physical or mechanical, chemical and vital; they are decreased, increased or perverted (as above). For each symptom state the frequency and importance.

The *Regional Symptoms* or symptoms presented by the neighboring organs, are subjective, physical, functional, and should be described after the same method as explained above.

For each of these symptoms state the frequency and importance.

The *General Symptoms* are those presented by the facial expression, the general attitude of the patient, by the organs at large, organs of circulation, respiration, etc. They may be subjective, physical, functional; they must be described as above explained. For each of these symptoms also state the frequency and importance.

The Symptoms of *Each Stage* of the disease must be described; they are also local, regional, general; and in each of these cases, subjective, physical, functional. For each also we must state the frequency and importance.

The stages are the *Premonitory*, the *Prodromic*, the *Incipient* or *Debut*; the *Developed* or *Established* state (as described above), the *Terminal Stage*, whose symptoms vary with the termination.

COURSE.

The Course of the disease must be stated, as acute, sub-acute, chronic, stationary. State the frequency and importance of each.

DURATION.

The Duration must be described in considering the disease as a whole, and then the duration of each stage; state the most frequent duration and the duration of each stage.

TERMINATION.

The Termination must be described as cure, stationary, chronic state, death. State also the frequency of each.

DIAGNOSIS.

The Diagnosis presents the following parts to describe: First—Enumerate the diagnostic signs by which the disease

may be recognized: these are derived from frequency, causes, symptoms, course, duration: also from the effects of the treatment. State the frequency and importance of each. Pathognomonic signs must always be given precedence above the others.

Second—Enumerate the other diseases resembling the disease under study.

Third—Make the Differential Diagnosis between these discases by comparing and weighing the importance and value of each sign in each disease (frequency, intensity, peculiarity).

Fourth—Diagnose or establish the stage, the course, the duration, the tendency to termination, without or with proper line of treatment; the form and variety, the complications.

Fifth—The diagnosis may be a diagnosis by anticipation when animals are inoculated to determine the true nature of the supposed case, and determine what is expected in the case of the patient who has been subjected to the same cause, as for inoculation in rabies and in tuberculosis with tuberculin.

Sixth—The Retrospective Diagnosis, that is the diagnosis of the true nature of the disease of which a patient has been affected: it is based upon the clinical history and the sequels or consequences of the disease: spots, cicatrices, impairment of functions, etc.

PROGNOSIS.

The Prognosis must state the general prognosis of the final termination of the disease; of its duration; of the possibility of relapses and of sequels; for each we must state the frequency and importance of each point.

TREATMENT.

The Description of the treatment of the disease comprises the description of the following points:

The *Prophylactic* and *Preventive* treatment; the *Abortive* treatment: the *Removal* of the offending cause: the *Specific* treatment; the *Curative*; the *Palliative*; the *Symptomatic* treatment or the treatment of the symptoms or treatment on general principles.

In each case state the means employed. They may be

hygienic (direct rest, etc.); they may be medical and remedial (medicines of all kinds); they may be surgical (topical or operative, of a minor or a major nature). The treatment may be by the mouth, or by the rectum, by inunctions, by hypodermatic injections, by intravenous injections. State the efficacy of each. The description of the treatment of each stage is indicated above.

RELAPSES. SEQUELS. CONSEQUENCES.

The Description of relapses, sequels and consequences must be stated carefully: state also the frequency, causes, symptoms, course, duration, termination, diagnosis, prognosis, treatment, sequels, consequences of sequels, forms and varieties, complications of sequels, recurrences; in a word, they must be described like separate diseases.

FORMS, VARIETIES, COMPLICATIONS AND RECURRENCES.

The Description of the forms, varieties and complications of the disease comprises that of all the points and features which are not commonly met with, and the description of which would embarrass or obscure the description of the most common or frequent appearance of the disease. Those forms, varieties and complications must be stated as due to peculiar frequency and causes: to pathological peculiarities, to peculiar symptoms, course, termination, duration, diagnosis, prognosis, complications, relapses, sequels or consequences. Complications may be local, regional or general. The local or regional complications may be due to malformation, to softening, induration, neurosis, injury, congestion, inflammation, gangrene, ulcer, fistula, tumor; they may affect the skin, connective tissue, adispose tissue, tendons, etc. The general complications may effect the organs of circulation, respiration, etc. For each form, variety or complication state the frequency and importance.

METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS FURNISHED BY THE SIGHT, TOUCH, HEARING.

The methodic description of the local symptoms turnished by the sight, touch and hearing is much facilitated by arranging them methodically, according to each disease or group of diseases. Hence the following separate methodical descriptions.

It is here specially that repetitions must be borne with patience for the sake of clearness and precision.

The classification here adopted and advocated is based on the clinical manifestation, which is visible and at once recognizable by the student, and which leads to the pathologic and etiologic characters which themselves lead to the diagnosis, prognosis and treatment.

Those diseases are: malformations, neuroses, softenings, indurations, injuries, congestions, inflammations, gangrenes, ulcers, fistulæ, tumors. They may affect the skin, connective tissue, adipose tissue, tendons, etc.

This plan corresponds to descriptive anatomy, a fair knowledge of which is previously necessary to study profitably general anatomy, which considers the tissues and organs of the same nature, regardless of their situation and relative position. In the study of surgical diseases, a descriptive and clinical knowledge is likewise necessary before undertaking the study of the disease from the point of view of causes or nature, irrespective of the clinical forms they may assume and the location they may affect. Such are diathesis, gout, scrofula, tuberculosis, syphilis. It would seem that the study of the general diseases should precede the study of their local manifestations, but experience teaches that that study is much more profitable after some clinical knowledge has been acquired.

I. - METHODIC DESCRIPTION OF A FUNCTIONAL SYMPTOM.

The methodic description of a functional symptom comprises the following features:

First—The alterations in the *Physical*, *i. c.*, mechanical phenomena of the functions; they usually consist of alterations of movements, *i. c.*, contractions of the muscular fibers of the part or of the organ. We must state the alterations in the capacity or extent of the movements (including those that are reflex, if any), in their duration, in their rhythm or order of succession, in their frequency or rapidity, in their intensity;

the alterations in the sounds presented by auscultation, if any, stating the course, intensity, rhythm.

Second—The alterations of the Chemical and Vital phenomena, comprising the description of the alterations taking place in the contents of the organ; alterations of character, by losses, by gains; the alterations in the presence or action of the peculiar agent which is usually present in the organ (such, e. g., as pepsin).

Third—The alterations of the Secretions of the organ which should be described after a separate guide explained below.

Fourth—The alterations in the Composition of the blood in the afferent vessels; also of the efferent vessels; these must be described after a separate method, as explained below.

Fifth—The alterations of the Nerve Actions and of the nerve centers, which preside over the functions.

II.—METHODIC DESCRIPTION OF THE PATHOLOGIC ALTERA-TIONS OF A NORMAL FLUID.

(Secretions, excretions, blood, urine).

These present to state:

First—The alterations of the Physical Characters, *i. c.*, quantity, color, smell, taste, consistency and specific gravity. For each state frequence and importance.

Second—The alterations of the Chemical Characters and of the composition, *i. c.*, of the reaction, of the qualitative analysis, of the inorganic (water, gas, salts), of the organic (albuminoids, carbonaceous), of the characteristic or peculiar substance usually present in the secretion (such, *c. g.*, as ptyalin, pepsin); of the quantitative analysis of each component part.

Third—The alterations of the Anatomic Elements or Solid Components, i. c., shown by the microscope, such as salivary corpuscles, blood corpuscles, etc. We must state the quantity or number, dimensions, color, shape, structure, chemical composition (histo-chemistry): their development and organic changes.

Fourth—The alterations in the Physiologic Functions of those fluids or secretions.

Fifth—The alterations in the origin or Development of the secretions.

Sixth—The alterations of the Nerve Action or nerve centers.

III. METHODIC DESCRIPTION OF NEW OR PATHOLOGIC FLUID.

(Pus, etc.)

This includes the following:

First—The Physical Characters: quantity, color, smell, taste, consistency or specific gravity, temperature.

Second—The Chemical Characters or Composition, including the reaction, the qualitative analysis, inorganic (water, gas, salts); organic (albuminoids, carbonaceous, characteristic organic substance, if, any); quantitative analysis.

Third—The Anatomic or Microscopic Analysis or characteristic of the solid elements; quantity or number, dimensions, color, shape, structure, chemical composition, physiologic functions, development or origin of the solid elements.

Fourth—The Pathologic Functions or Uses of the pathologic fluid.

Fifth—The Development, Origin, Changes, etc., of that fluid.

Sixth—Action of the Nerves and nerve centers on the secretions of the fluid.

IV. METHODIC DESCRIPTION OF A CONGENITAL MALFORMATION OR DEFORMITY.

(Atrophy, hypertrophy, deviation or asymmetry.)

This must state if it consists in the absence of the organ, partial or total; or if the organ is double; if it is an arrest of development, such as fissures, fistulæ; if it is atrophy or hypertrophy, and state if it is general or bilateral; if it involves the whole region or organ, or if it is partial, *i. e.*, involving a part only; or if one side only is involved; if it is homogenous or heterogenous, *i. e.*, of the same nature or character; or not, all over; if its anatomic site is in the skin (pigment, hair, cuticle, cutis, sebaceous glands, sweat glands, vessels, nerves), or in the connective tissue, adipose tissue, tendons, etc.

If the malformation is a deviation or asymmetry, we must state if it be directed upward, downward, laterally, backward, or in an intermediate direction.

V.—METHODIC DESCRIPTION OF AN ACQUIRED OR POSTNATAL MALFORMATION.

(Atrophy, hypertrophy, deviation or asymmetry.)

The same course must be followed as for a congenital maltermation. It must further state if it is characterized by the destruction of the organ, partial or total; also the cause in each: softening, neurosis, induration, injury, inflammation, gangrene, ulcer, fistula, tumor, operation, cicatrix, and whether they affect the skin, connective tissue, etc.

VI.—METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS OF A SURGICAL NEUROSIS.

(Sensory neuroses: pain, neuralgia. Motor neuroses: paralysis, spasms or convulsions, contractions, retractions, contractures.)

The Subjective Symptoms often occupy here a considerable place. They are the following:

First—The frequency of the attack, daily, weekly.

Second — Whether the neurosis is spontaneous or provoked, or increased by the function of the part.

Third—The seat or tract of the neurosis, i. e., the spot where it begins, the line or tract which it follows as traced by the patient; the spot where it ends; state if there are spontaneous painful spots or a spot or place where the symptom is greater; also the breadth or width of the tract or course of the neurosis.

Fourth—The intensity, degree of force, slight, moderate, great, very great.

Fifth—The character of the pain, if any, lancinating, boring, acute, dull, sharp, burning, etc. Note the comparisons made by the patient.

Sixth—The course or rhythm of the neurosis, i. e., if the intensity is always the same: if not, describe how it is: then state the time of the onset, of the maximum, of the decrease and of the cessation: the influence of morning, noon, evening, night, midnight, dawn: state if there are remissions or

intermissions during the attack, or if the neurosis is continuous until the attack is over; state the duration of the remissions or of the intermissions; state if the attacks are periodical.

Seventh—State the effects of pressure, by the tip of the finger or a broad surface; of slight pressure or of great pressure; of short or of continued pressure.

Eighth—State the effects of cold or hot applications; of cold weather with or without dampness; the effect of barometric changes.

Ninth—State the mode of termination of the attack: abruptly, rapidly, gradually; if there are any critical symptoms.

Tenth—State the duration of an attack: hours, days, etc. The Physical Symptoms are the following:

Eruptions or not along the course of the affected nerve or part. Pressure on peculiar spots, at points of emergence of nerves through fascia and bones. Effects of pricking with a pin, of hot or cold applications, of electricity, with the patient's eyes closed; effects of threats to use painful methods of treatment (blisters, hot iron, etc.) Effects of fictitious medication: bread pills, hypodermics of water, of air.

The Functional Symptoms require description as to the alterations of the normal phenomenon of the functions of the part (as above), and the alterations by new phenomena: new position of the part, of the patient.

The *Regional Symptoms* comprise specially the irradiations of the manifestations, the sensations of heat and cold, of heaviness, of prickings, of numbness of the region, of spasmodic and clonic contractions, of tonic contractions or contractures. Describe the condition of the patient immediately after an attack, the local and the general symptoms. Describe also the condition of the patient during the intervals of an attack, the local and the general symptoms.

VII—METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS OF AN INDURATION, A SWELLING, A TUMOR.

The description of the Subjective Symptoms must be made according to the general description; they usually consist of

pain, of peculiar sensations of heat, of cold, heaviness, prickings, numbness, etc.

The *Physical Symptoms* comprise the number of the lesions. the situation (region, superficial, deep), dimensions (relative, absolute), direction, shape. The description of the surface includes the extent or dimensions, shape or form (plane, convex, concave, in a vertical or transverse direction); color (red, blue, etc.); projections (vesicles, lobules, lobes); depressions (grooves, sulci, ulcers, fistula); relations with the skin (loose or adherent); consistency (fluctuant, hard, soft, pulsatile without expansion, pulsatile with expansion); effects of pressure on tumor, on artery and vein above and below; ædema or pitting; effects of percussion. The description of the borders includes the extent or limits (circumscribed, diffused); shape or form (plane, convex, concave, regular, irregular, etc.); color, projections, depressions, relations with skin, consistency, etc. (as for the superficial surface). The description of the deep surface includes the mobility on the deep, soft parts, also on the bones; the extent of the mobility; sessile or pedunculated. The auscultation of the part should be described as above. The Secretions, if any, from the ulcerations also as above.

The Functional Symptoms must be described, also, as above explained.

The *Regional Symptoms* or symptoms presented by the neighboring organs must be described as above explained, also.

VIII—METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS OF A SOFTENING, A BURN, A FROST-BITE, A CONTUSION, A SPRAIN, A CONGESTION, AN INFLAMMATION, A GANGRENE.

The Subjective Symptoms must be described as explained in the general guide.

The *Physical Symptoms* comprise the description of the following points: The number of lesions, the situation, the dimensions or extent, the direction, the shape. The *surface* presents for study the color, the projections, the depressions, the relations with the skin (loose or adherent); the consistency, hard, fluctuant, soft, pitting under pressure of the finger, crepitant, pulsatile without expansion, pulsatile with expansion

sion, effects of pressure on the parts, of pressure above and below and around on the skin, connective tissue, etc., effects of percussion. The borders present for study the dimensions or extent, direction (straight or sinuous); shape (circumscribed or diffused), color, projections, depressions, relations with the skin (loose or adherent), consistency, fluctuant, soft, pitting under the finger, hard, crepitant, pulsation without expansion, pulsation with expansion, effects of pressure above, below, all around, on skin, connective tissue, adipose tissue, etc., effects of percussion. The deep surface of the affected parts presents for study the mobility on the deep, soft parts and on the bones; the extent of the mobility. Inscultation presents for study the points explained above. The Secretions of the affected parts must be studied as described above, also.

The Functional Symptoms should be described according to the guide above explained. The Regional Symptoms also.

IX—METHODICAL DESCRIPTION OF THE LOCAL SYMPTOMS OF A PUNCTURED WOUND, A STING, A FISTULA.

The Subjective Symptoms call for no special guide here.

The Physical Symptoms present for study the following points: The number of lesions; each should be described separately. The external or superficial orifice presents for mention its situation, size, shape, direction, color, inversion or eversion; its smooth or ragged appearance, its projecting. depressed or sunken condition, if it is hidden or not by a fold; its consistency (hard or soft); if it is circumscribed or diffused; its mobility (loss of parallelism); if it is clogged or free, and dry or oozing (blood, serum, pus, special substances). The tract or course of the wound or fistula presents for consideration its direction toward the deep parts, upward, downward, backward, or in an intermediate direction: the anato mic point toward which it seems directed; if it is straight, or curved or tortuous; cord-like sensation of the tract. The internal orifice or bottom presents for study its situation, depth or point of exit; if this orifice is visible or can be felt it should be described as the external orifice; state if it has or not penetrated, i. c., injured any important structure (tendons, muscles, fasciæ, arteries, veins, large lymphatic vessels, lymphatic glands, nerves, and organs special to the region); state the symptoms by which each lesion is recognized. State the presence or absence of any *forcign body*, part of instrument, bone, etc. Describe the *secretions* of the wound, if any, according to the guide as above explained.

The Functional Symptoms should be described according to the general guide above.

The Regional Symptoms also.

X.—METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS OF AN INCISED, A LACERATED, A GUNSHOT, A BITE WOUND.

The Subjective Symptoms should be described as set forth in the general guide.

The Physical Symptoms present for description the following points: The number of the lesions. The external solution of continuity or orifice presents for statement its situation, size, shape, direction, color; its inversion or eversion; its smooth or ragged appearance; its projecting, depressed or sunken condition; its consistency (hard or soft); if it is bruised or not; its mobility (loss of parallelism); if it is closed by a clot or oozing (blood, serum, pus, special substances). The depth or course toward the deep parts, upward, downward, forward, backward, intermediate direction; state toward what anatomic point it seems directed. The internal orifice or bottom presents for study its situation and depth; state if it has or not penetrated beyond the fascia of the region, and has or not injured the important structures (tendons, muscles, fasciæ, arteries, veins, large lymphatic vessels. lymphatic glands, nerves, and organ special to the region), and state the signs by which each lesion is recognized, also its extent: state if there is or not any forcign body (piece of instrument, clothing, etc.) in the wound. Describe the secretions of the wound, if any, according to the guide above. When there is hemorrhage, describe it according to the guide for a normal fluid.

Functional Symptoms should be described according to the general plan.

The Regional Symptoms also.

XI.—METHODIC DESCRIPTION OF FOREIGN BODIES IN WOUNDS.

Enumeration—They may be broken points, broken blades, bullets, wadding, clothing, dirt, pieces of wood, etc. State the number, size, depth, duration of stay in the wound; the changes or alterations they have undergone therein.

XII.—METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS OF A DISLOCATION AND OF A FRACTURE.

The Subjective Symptoms require here no special guide.

The *Physical Symptoms* present for study the following points: The *number* of the lesions, situation, dimensions (extent or swelling), duration. The *shape*; sometimes there exists a characteristic deformity; or the parts have a peculiar position and shape, or there is a shortening of the limb or part. The *surface* presents for statement, the color, the projections or depressions, which sometimes exist on both sides of the parts, in which case they alternate; the relation with the skin (loose, stretched, tense, adherent); the consistency of the parts (hard masses, movable upon each other or immovable; cedema or pitting, (fluctuation). The *borders* or edges are circumscribed or diffused. The *deep surface* presents to state the mobility of the bones at points where they should be continuous; the extent of the mobility and the crepitation, if any, fine, coarse, easily produced or not.

The Functional Symptoms call here for no special description.

The *Regional Symptoms* call for the description of the shortening of the limb or part, the peculiar position of the limb or part, or of the patient himself in relation to the part: also the *symptoms* presented by the skin, connective tissue, adipose tissue, etc.

XIII.—METHODIC DESCRIPTION OF THE LOCAL SYMPTOMS OF AN ULCER.

The Subjective Symptoms call for the mention of the presence or absence of pain (indolent ulcer).

The *Physical Symptoms* present the following points to be described: The *number* of ulcers, situation, dimensions or

extent (length, breadth, depth): direction, shape. The surface presents for description the color, the projections, granulations or depressions, consistency. The borders call for mention of the color, thickness, direction (perpendicular, slanting, regular, sinuous, dissection of the skin, undermining). The secretions, blood, serosity, pus, ichor, should be described as a fluid, as indicated above.

The Functional Symptoms should be described as indicated in the general guide. The Regional Symptoms also, especially the glandular involvement.

The tabulation of those methodical descriptions will greatly assist in understanding them thoroughly and remembering them more easily.

METHODIC DESCRIPTION OF THE SURGICAL DISEASES AND INJURIES OF A REGION OF THE BODY.

When the region of the body, such as the neck, for instance, presents several smaller regions, we must first describe the diseases of that region as a whole, and then the diseases of each smaller region.

It must be assumed here that the student of regional surgery is conversant with the general surgical diseases; and to avoid useless and often confusing repetitions, we must, in regional surgery, confine the descriptions to the following points:

First—Describe the peculiarities only presented by the diseases which may affect any region of the body when they affect that region as a whole or in part. By peculiarity is meant a feature or a point not common to all the regions of the body, or of all the regions of that part. Ill the points or features common to all regions properly belong to the description of the disease in general, and should be carefully omitted under penalty of useless repetition. The peculiarities of the diseases of a region are due to, or depend upon, frequency, causes, pathologic anatomy or physiologic symptoms, course, duration, termination, diagnosis, prognosis, treatment, relapses, sequels, forms or varieties and complications; it may be complicated by other diseases: or it may be complicating other less grave diseases. The peculiarities must be carefully

described in that order, so that upon reading of the peculiarities due to the symptoms, for instance, the student may rest assured that there are no peculiarities relating to frequency, causes, etc.

Second—Describe the diseases special to the region, if any, i. c., not met with anywhere else, or rarely so, or enumerate the diseases which are most frequent in the region, or which begin in the region to spread from there over other regions.

Third—Describe the Surgical Operations of the regions. If these are the same as occur within other localities, the peculiarities and modifications alone which the region calls for must be mentioned. If the operation is one special to the region, it must be described with particular care and thoroughness.

Fourth—Each region presents for study the same diseases as described above, i. c., malformations, neuroses, softenings, indurations, etc. Those diseases affect the skin, connective tissue, adipose tissue, tendons, muscles, periosteum, fasciæ, bones, arteries, veins, capillaries, lymphatic vessels, lymphatic glands, nerves, organs special to the region. The diseases of a region must be described after the methods or guides elaborated above.

BIBLIOGRAPHY.

The bibliographic indications should always be given in full; names and surnames of authors; detailed title of book; exact date, number of editions, if several; also of the journals, year, date, number of page; if the subject has been reproduced in several journals, name them all, because if one is not accessible to the student the others may be. Thus any student wishing to study the subject in detail can readily know how to do so.

THE METHODIC REPORT OF A SURGICAL CASE.

THE methodic report of a surgical case comprises the description of the history of the patient, of the present state, of the diagnosis, of the course and treatment, of the termination and sequels, and lastly, in case of death, of the post-mortem examination.

HISTORY OF THE PATIENT.

First—Note the sex and the age of the patient.

Second—Note the race, the nationality.

Third—Note the jamily history, i. e., the age and the condition of health of the parents, if living; when any parent is in bad health, ascertain the name and nature of the disease and its course and duration, if possible; if dead, the age at which death occurred and the cause of death. This applies to the ascendants (father, mother, grandfather, grandmother, both on the paternal and the maternal sides); to the collaterals (uncles, aunts, cousins), to the descendants (children, grandchildren); note the parent the patient resembles the most or takes after physically.

Fourth—Note the place of birth; also the various places where the patient has lived; the duration of his stay in each place.

Fifth—Note the effects, if any, of the various causes described above in the methodical description of a surgical disease, i. e., of the geographic, telluric, zymotic, physical, chemic, hygienic, therapeutic, anatomic, physiologic, pathologic, (including the disease through which the patient has gone); note the cause to which the patient attributes his disease.

Sixth—Note the condition of health previous to the attack; also the date and mode of debut, the premonitory and prodromic symptoms (subjective, physical, functional, regional and general); note the order of succession of the symptoms, the duration of this period, the treatment undergone and the effect; the course of the disease up to the date of the present record.

PRESENT STATE.

The description of the present state includes the mention of all the symptoms actually presented by the patient, the subjective, physical, functional, regional, general; the guides detailed in the methodic description of a surgical disease should be here followed closely. Note the intensity of each symptom.

DIAGNOSIS.

The diagnosis is now made in the following manner:

First—Make a resumé of the salient points or signs of the case derived from all sources, sex, age, race, nationality, place of birth, places where he has lived, effects of the various possible causes of the disease, course, actual symptoms and duration of the disease.

Second—Note the diseases resembling the case.

Third—Differentiate them as explained in methodic description of a surgical disease and also further.

Fourth—Diagnosticate the stage, the tendency to termination.

Fifth—Diagnosticate the forms or varieties, the complications.

COURSE AND TREATMENT.

The course and treatment call for the recording of the date, day, hour, when any changes of any consequence take place, in the symptoms (subjective, physical, functional, regional, general), or in the treatment, hygienic, medical, surgical, etc., as set forth in the methodic description of a surgical disease. Note relapses (date, causes, symptoms, etc.); also recurrences.

TERMINATION OF THE DISEASE.

The termination of the disease should be well noted; the sequels or consequences, if any, should be carefully mentioned.

POST-MORTEM EXAMINATION.

The post-mortem examination should be conducted after the rules laid down in the methodic description of a surgical disease; that is, the lesions of the main organ should be described first, then those of the region, then of the distant or general organs; the macroscopic and microscopic lesions should be noted, etc.

FINAL RECORD.

The final record must be complete; it must include all the above, also the various charts (temperature, pulse, respiration, stethoscopic, plessimetric, sphygmographic); microscopic slides, photographs, if any, should accompany the report; the pathologic specimen should be deposited in a museum, with a distinct number for reference; the label should explain the main features of the case.

RULES TO BE OBSERVED BY THE RECORDING SURGEON.

- 1. Put the questions with politeness and solicitude; kindness and gentleness will accomplish more than any other policy.
- 2. The phenomena should guide toward the solution sought; do not shape the phenomena toward a desired solution; be led by the answers, do not lead them.
- 3. The number of questions must not be too numerous, nor be too few.
- 4. Use plain, simple words and expressions which the patient will understand.
- 5. Do not propound complex questions which bear on several points at the same time.
- 6. Put the questions in such a manner that the answers should be simply yes or no.
- 7. Do not allow the patient to indulge in too minute details which usually end in useless prattle; however, patients must be allowed a free statement; when they digress too much from the main point, bring them back to it, but gently and with care, otherwise they may become seared or nervous or sullen; some resent it by willfully giving false answers.
- 8. When the surgeon doubts the veracity of the patient, or when the answers lead to an extraordinary fact, the surgeon should change the terms and forms of the questions; he should cross-examine; he should return to this same point later, again in the examination; sometimes it is better to return to it the next day or some other day; should the patient then

give different answers on that same point, he should be reminded gently of his former answer; the version he finally adopts is usually the true one, or the fraud, if any, is more easily detected.

- 9. Put as few questions as possible in cases in which quiet or silence is necessary (great pain, shock, etc.)
- 10. Proceed with gentleness in physical examinations, specially of the organs of generation and of the anus, particularly in the female.
- 11. Do not expose the patient any more than is absolutely necessary, on account of modesty and also because exposure may cause cold.
- 12. Questions relative to syphilis must be put carefully; never in the presence of the wife or conversely, or of other parties objectionable to the patient.
- 13. Avoid questions, words, movements or facial expressions which may convey an unfavorable impression to the patient. Take into consideration the social position and the character of the patients in examining them, as some are more nervous and sensitive than others.

METHODS OF INTERROGATION.

There are two methods of interrogating a patient.

The *First Method* consists in beginning to review all the possible features of the case, following closely the order above described. This procedure is long and tedious, because the local trouble is only discovered when the turn of the organ comes in the examination; but in obscure cases it is the safer and preferable method.

The Second Method consists in well determining the debut and lets the patient narrate what he feels and knows, so that he will himself guide the surgeon to the affected organ, which will then be thoroughly examined, and afterward the organs at large.

METHODS OF DIAGNOSIS.

The *Method by Hypothesis* consists in taking up at once the first disease which the symptoms suggest to the mind and to see if all the important signs fit it or not; if they do not correspond, then the next disease which suggests itself is considered; and so on until a disease is found that corresponds to all or most all the important signs.

The Method by Exclusion consists in precising the salient signs of the history; in noting the diseases to which those signs may belong, thus eliminating at once all diseases where those signs are not usually observed, in determining the diseases to which these signs do not correspond thoroughly and eliminating them one after the other according as the signs correspond less and less, so that in the end the only disease retained is the one to which the signs correspond best.

REMARKS.

First—In cases wherein the data are insufficient, all the regions and organs of the body must be examined one after the other before the diagnosis can be reached, as in cases of general injury, with no special localization; or when the patient is incapable of precising in any way or gives contradicting or vague, worthless answers, with a view either to deceive the surgeon, or because of a lack of intelligence, or because of the absence of any predominating sensations, or when there is unconsciousness, delirium, intoxication, coma. The diagnosis is reached only by the general result of such signs as have been gathered in this way.

Second—The diagnosis of a disease may be difficult or impossible at the onset or during all its course down to the termination, favorable or unfavorable, or when the surgeon is called at the time of impending death, or when the patient simulates a disease or dissimulates the disease with which he is affected.

Third—In cases of disease presenting attacks or exacerbations, it is important to see the patient at the time of the paroxysm.









